

## **PUBLIC NOTICE**

File Number: NRS 14.085

Pursuant to Chapter 0400-4-7 of the Department's rules, the proposed activity described below has been submitted for approval under an Aquatic Resource Alteration Permit and §401 Water Quality Certification. This notice is intended to inform interested parties of this permit application and to ask for comments and information necessary to determine possible impacts to water quality. No decision has been made whether to issue or deny this application.

**APPLICANT:** Tennessee Department of Transportation

Environmental Permits Section Suite 900, James K. Polk Bldg.

505 Deaderick St. Nashville, TN 37243

615-253-2466

**LOCATION:** Interstate 69 from South of SR3 to South of SR-5 (Lat: 36.3881/ Lon: -89.0947), File# NRS 14.085, Obion County

**PROJECT DESCRIPTION:** The applicant proposes to construct 2.422 miles of Interstate 69 from south of SR3 to south of SR5 in Obion County (Lat: 36.3881/ Lon: -89.0947) including impacts to wetland and streams.

## **IMPACTS:**

Impact 1: Latitude: 36.3881 Longitude: -89.0947 Unnamed tributary to Hoosier Creek(STR-1) Station 248+853.73

Existing 226 ft. of open stream to be replaces with 176 ft. of 14X10 ft. box culvert plus 50 ft. of

riprap at the outlet.

Impact 2: Latitude: 36.3945 Longitude: -89.0963

Unnamed intermittent tributary to Hoosier Creek (STR-3) Station 89+93 to Sta. 90+70

Installation of a 92 ft. of rock lined French drain.

<u>Impact 3</u>: Latitude: 36.4031 Longitude: -89.0947 Unnamed tributary to Hoosier Creek (STR-4) Station 298+50

Existing 830 ft. of open stream to be replaced with 303 ft. of 14X9 ft. box culvert plus 50 ft.

riprap at the outlet and a loss of 277 ft. of stream length.

<u>Impact 4</u>: Latitude: 36.4130 Longitude: -89.0844 Unnamed tributary to Hoosier Creek (STR-5) Station 315+50 (Rt) Installation of a 20' riprap outfall structure.

Impact 5: Latitude: 36.4109 Longitude: -89.0847

Wetland (WTL-1) Station 340+60 to Sta. 341+50(Rt).

Permanent impact (fill) to 0.14 acre wetlands.

<u>Impact 6</u>: Latitude: 36.4145 Longitude: -89.0868

Wetland (WTL-2) Station 350+45 (RampA2/B2)

Permanent impact (fill) to 0.16 acre wetlands and installation of a 4" steel gas line. .

<u>Impact 7</u>: Latitude: 36.4163 Longitude: -89.0858

Wetland (WTL-3) Station 67+30 to Sta. 70+80 (Ramp

A2)

Permanent impact (fill) to 0.45 acre and temporary impact to 0.12 acre of wetlands.

<u>Impact 8</u>: Latitude: 36.4177 Longitude: -89.0854 Unnamed tributary to Hoosier Creek (STR-8) Station 115+00.37

Existing 795 ft. of open stream to be relocated into 670 ft. of open channel (in kind) and 191 ft.

of 76"X48" elliptical pipe culvert.

<u>Impact 9</u>: Latitude: 36.4187 Longitude: -90.0846 Unnamed tributary to Hoosier Creek (STR-9) Station 369+41.69

Existing 463 ft. of open stream to be replaced with 383 ft. of 10X4 ft. box culvert plus 40 ft. riprap at the outlet and inlet. Associated with this site is water and sewer lines installed by horizontal directional drill.

<u>Impact 10</u>: Latitude: 36.4220 Longitude: -89.0842 Unnamed tributary to Hoosier Creek (STR-10) Station 381+83.29

Existing 20 ft. of 48" CMP and 232 ft. of open stream to be replaced with 164 ft. of 8X4 ft. box culvert plus 40 ft. of riprap at inlet and outlet.

<u>Impact 11</u>: Latitude: 36.3937 Longitude: -89.0945

Unnamed tributary to Hoosier Creek (STR-2) Station 85+00

Existing 86 ft. of span bridge to be widened by installation of overhang and installation of a water line by horizontal directional bore.

<u>Impact 12</u>: Latitude: 36.4031 Longitude: -89.0947 Unnamed tributary to Hoosier Creek (STR-4) Station 117+16

Existing 101 ft. of open stream and 112 ft. of 2 @ 10X10 box culvert to be extended by 67 ft. of

plus 34 ft. riprap at outlet and 50 ft. of riprap at the inlet

<u>Impact 13</u>: Latitude: 36.4022 Longitude: -89.0908

Unnamed tributary to Hoosier Creek (STR-5)

Station 120+03 (Walker Tanner

Road)

Existing 120 ft. open stream to be replaced with 86 ft. 60" RCP plus 34 ft. riprap and a water line installed by horizontal directional drilling.

Impact 14: Latitude: 36.4044 Longitude: -89.0950

Unnamed tributary to Hoosier Creek (STR-6) Station 105+06 (Walker Tanner

Road)

Existing 220 ft. of open stream to be replaced with 120 ft. of 12X5 ft. box culvert with 50 ft. riprap at the inlet and outlet..

**MITIGATION REQUIRED:** The applicant proposes mitigating for the permanent impact to 0.75 acre of wetlands by debiting, at a 2:1 ratio, 1.5 acres of available credit from the Obion County Wetland Mitigation Bank. Mitigation for 1,234 ft. of stream encapsulation/losses would be mitigated by payment of \$296,160.00 to the Tennessee Stream Mitigation Program.

**DEGRADATION:** In accordance with the Tennessee Antidegradation Statement (Rule 0400-40-03-.06), the division has determined that the proposed activities will not result in degradation to water quality.

**WATERSHED / WATERBODY DESCRIPTION:** Hoosier Creek is part of the Obion River watershed (North Fork) watershed located in West Tennessee and includes parts of Dyer, Gibson, Henry, Lake, Lauderdale, Obion and Weakley counties. It is approximately 1,313 square miles (1,169 square miles in Tennessee) and drains to the Obion River. For more information on this watershed please visit <a href="http://www.state.tn.us/environment/water/watersheds/lower-tennessee-river.shtml">http://www.state.tn.us/environment/water/watersheds/lower-tennessee-river.shtml</a>.

Stream Name / ID #: Hoosier Creek (ID TN08010202419\_1000)

**Ecoregion:** Loess Plains Ecoregion (74b/74a) **Stream Dimension:** Channel bottom width 8 ft.

Chanel top width 60 ft.
Water depth 12"
Bank height 18 ft.

**Substrate:** Mud/Silt

Designated UseUse SupportCausesFish and aquatic lifeNot supportingSiltation

Recreation fully supporting
Industrial water supply fully supporting
Irrigation fully supporting
Livestock watering & wildlife fully supporting

This stream is available for additional impacts to habitat.

**Assessment Date:** 2013

PERMIT COORDINATOR: Brian Canada

**FACTORS CONSIDERED:** In deciding whether to issue or deny a permit, the department will consider all comments of record and the requirements of applicable federal and state laws. In

making this decision, a determination will be made regarding the lost value of the resource compared to the value of any proposed mitigation. The department shall consider practicable alternatives to the alteration. The department shall also consider loss of waters or habitat, diminishment in biological diversity, cumulative or secondary impacts to the water resource, and adverse impact to unique, high quality, or impaired waters.

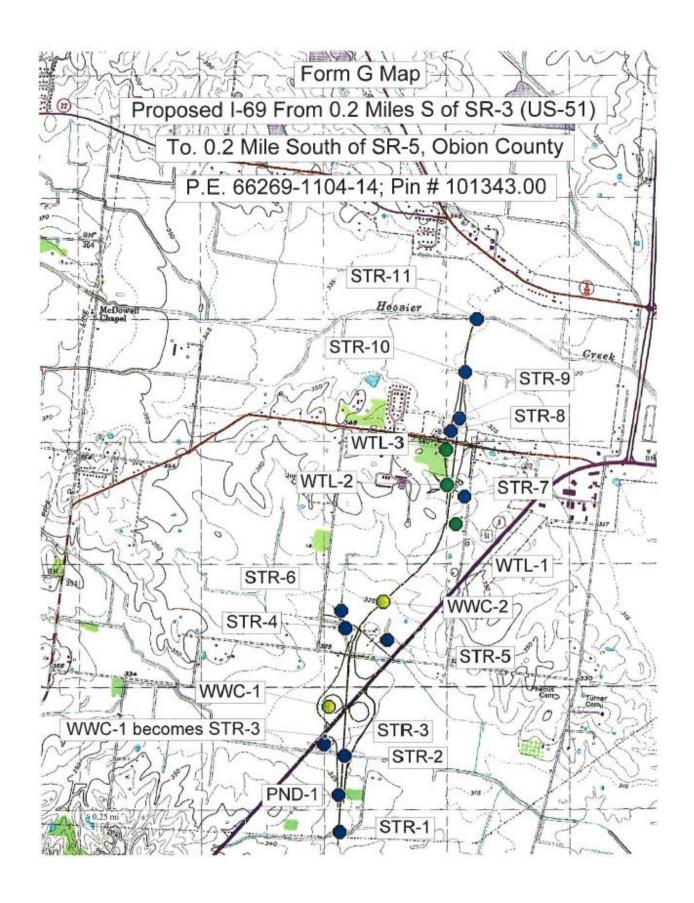
**COMMENTING:** Persons wishing to comment on the proposal are invited to submit written comments to the department. Written comments must be received within **thirty days of the date that this notice is posted**. Comments will become part of the record and will be considered in the final decision. The applicant's name and permit number should be referenced. Send all written comments to the department's address listed below and to the attention of the permit coordinator.

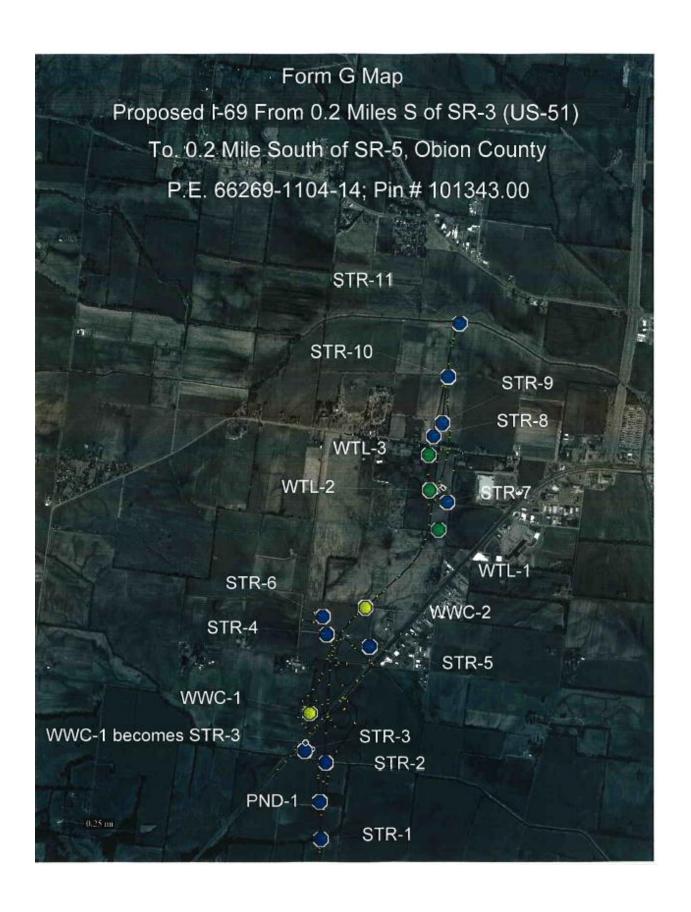
**PUBLIC HEARING**: Interested persons may request in writing that the department hold a public hearing on this application. The request must be filed within the comment period, indicate the interest of the person requesting it, the reasons that the hearing is warranted, and the water quality issues being raised. When there is sufficient public interest in water quality issues, the department will hold a public hearing. Send all public hearing request to the department's address listed below and to the attention of the permit coordinator.

**APPEAL:** A permit appeal may be filed, pursuant to T.C.A. §§ 69-3-105(i) and Rule 0400-40-05, by the permit applicant or by any aggrieved person who participated in the public comment period announced by this notice. This petition must be filed within THIRTY (30) DAYS after public notice of the issuance of the permit. The petition must specify what provisions are being appealed and the basis for the appeal. It should be addressed to the technical secretary of the Tennessee Board of Water Quality, Oil and Gas at the following address: Dr. Sandra Dudley, Director, Division of Water Resources, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Ave, 12<sup>th</sup> floor, Nashville, TN 37243. Any hearing would be in accordance with T.C.A. §§69-3-110 and 4-5-301 et seq.

**FILE REVIEW:** The permit application, supporting documentation including detailed plans and maps, and related comments are available at the department's address (listed below) for review and/or copying.

Tennessee Department of Environment & Conservation Division of Water Resources, Natural Resources Unit William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor Nashville, Tennessee 37243





## Standard Stream Mitigation (if required)

Apply these measures to all applicable streams listed in Form J. Duplicate the length, bottom channel width, elevations, meander wavelength, and curvature of the existing channels to the extent possible. Each channel should transition smoothly from its beginning elevation to its tie-in elevation in the receiving stream, without profile drops or jump. Locate the new channels in as flat an area as possible to avoid unusually high side slopes; this may require some additional right-of-way. Channel length placed in springboxes or culverts counts as part of the new channel length (but may require off-site compensatory mitigation that would not be required for an open channel). Channel side slopes should be 1.5:1 (if possible) and seeded or sodded. Plant two alternating rows of trees on 15-foot centers on both sides of the new channels. The first row should be centered no further than 3 feet from the top edge of the bank. Rip-rap, if required, should be limited to ends of culverts. All relocated channels and their accompanying mitigation features, including trees, are to be placed in right-of-way rather than easements; this may require acquisition of additional right-of-way. Use the following tree specifications:

Item#	Description	Unit
	TREES (Populus deltoides 1 1/4" - 1 1/2" Cal, B & B)	
	TREES (Liquidambar styraciflua 1 1/4" - 1 1/2" Cal, B & B)	
	TREES (Platanus occidentalis 1 1 1 1 2 Cal, B & B)	
	TREES (Quercus falcata 1 1/4" - 1 1/2" Cal, B & B)	
	TREES (Fraxinus pennsylvanica 1 1/4" - 1 1/2" Cal, B & B)	

These trees were the common tree species present along the existing stream banks.

Figure 1. Spacing for tree planting along relocated stream.

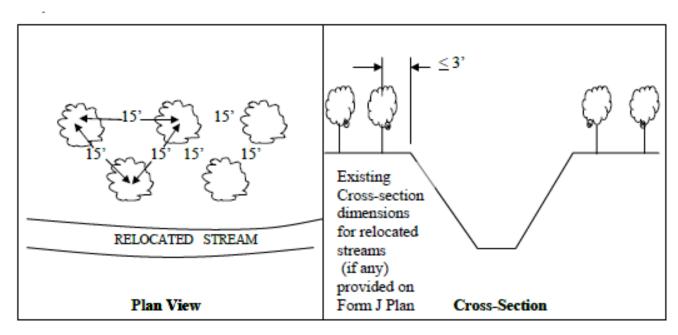




Photo 1 (2609)

Sta. 248+80 (I-69)

Downstream view of STR-1.



Photo 2 (2610)

Sta. 248+80 (I-69)

Upstream view of STR-1.



Photo 3 (2608)

Sta. 69+20 - 70+40 (Ramp A) Sta. 258+00L - 259+30L (I-69)

Western view of PND-1.



Photo 4 (2607)

Sta. 269+30 (I-69) Sta. 58+80 (Ramp A) Sta. 63+80 (Ramp F) Sta. 212+00 (SR-3, US 51)

Downstream view of STR-2.



Photo 5 (2606)

Sta. 269+30 (I-69) Sta. 58+80 (Ramp A) Sta. 63+80 (Ramp F) Sta. 212+00 (SR-3, US 51)

Upstream view of STR-2.



Photo 6 (5048)

Sta. 51+10 (Ramp A) Sta. 217+30R (SR-3, US 51)

Downstream view of STR-3 taken from US 51 culvert outlet. Channel is incised to ground water, stream is standing pools only.



Photo 7 (5047)

Sta. 220+00L (SR-3, US 51) Sta. 50+80 (Ramp B1)

Sta. 60+30 (Ramp B)

Sta. 55+40 & 61+70 (Ramp C)

Down gradient view of WWC-1 taken from proposed centerline of Ramp B.



Photo 8 (5046)

Sta. 220+00L (SR-3, US 51)

Sta. 50+80 (Ramp B1)

Sta. 60+30 (Ramp B)

Sta. 55+40 & 61+70 (Ramp C)

Up gradient view of WWC-1 taken from proposed centerline of Ramp B



Photo 9 (5050)

Sta. 296+50 (I-69)

Sta. 55+70 (Ramp B)

Sta. 60+85 (Ramp D)

Sta. 244+30 (SR-3, US 51)

Downstream view of STR-4 toward proposed centerline of I-69.



Photo 10 (5054)

Sta. 296+50 (I-69) Sta. 55+70 (Ramp B) Sta. 60+85 (Ramp D) Sta. 244+30 (SR-3, US 51)

Upstream view of STR-4 toward proposed centerline of I-69.



Photo 11 (5057)

Sta. 120+50 (Walker Tanner Rd.)

Downstream view of STR-5 near proposed improvements to Walker Tanner Rd.



Photo 12 (5056)

Sta. 120+50 (Walker Tanner Rd.)

Upstream view of STR-5 near proposed improvements to Walker Tanner Rd.



Photo 13 (5051)

Sta. 105+00 (Walker Tanner Rd.)

Downstream view of STR-6 near proposed improvements to Walker Tanner Rd.



Photo 14 (5052)

Sta. 105+00 (Walker Tanner Rd.)

Upstream view of STR-6 near proposed improvements to Walker Tanner Rd.



Photo 15 (5060)

Sta. 313+50 (I-69)

Down gradient view of WWC-2 at proposed centerline of I-69.



Photo 16 (5061)

Sta. 313+50 (I-69)

Up gradient view of WWC-2 at proposed centerline of I-69.



Photo 17 (5058)

Sta. 340+60R - 341+50R (I-69)

Western view of WTL-1.

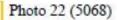


Photo 18 (5064)

Sta. 349+00R (I-69)

Sta. 51+00R (Ramp B2)

Upstream view of STR-7. Stream begins east of proposed ROW and will not be directly impacted by the project. Recently altered by agricultural activity.



Sta. 59+80 - 66+00 (Ramp C2)

Downstream view of STR-8 as it parallels proposed Ramp C2.



Photo 23 (5067)

Sta. 59+80 - 66+00 (Ramp C2)

Upstream view of STR-8 as it parallels proposed Ramp C2.



Photo 24 (5069)

Sta. 369+50 (I-69)

Sta. 59+80 (Ramp C2)

Sta. 71+70 (Ramp D2)

Downstream view of STR-9.





Photo 25 (5070)

Sta. 369+50 (I-69) Sta. 59+80 (Ramp C2) Sta. 71+70 (Ramp D2)

Upstream view of STR-9.



Photo 26 (5071)

Sta. 381+80 (I-69)

Downstream view of STR-10 taken from proposed centerline of I-69.



Photo 27 (5072)

Sta. 381+80 (I-69)

Upstream view of STR-10 taken from proposed centerline of I-69.



Photo 28 (2643)

Sta. 396+50 (I-69)

Downstream view of STR-11 (Hoosier Creek) taken from proposed centerline of I-69.



Photo 29 (2642)

Sta. 396+50 (I-69)

Upstream view of STR-11 (Hoosier Creek) taken from proposed centerline of I-69.

